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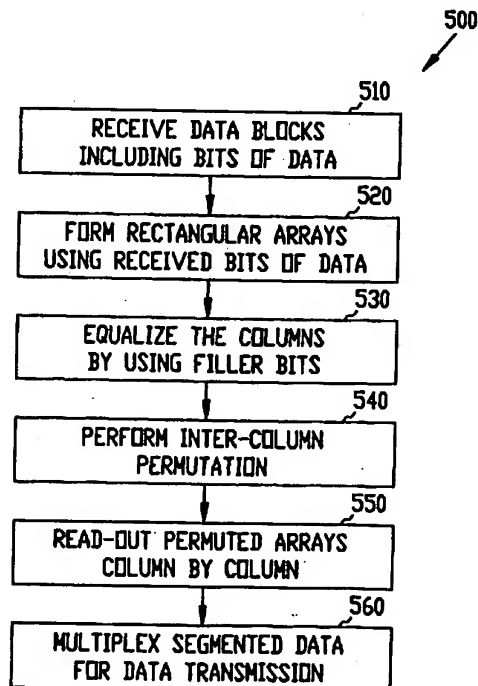
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(54) Title: A TECHNIQUE FOR REDUCING PROCESSING POWER IN 3G SYSTEMS



(57) Abstract: The present invention provides an improved transmitter for processing data blocks including bits of data coming from multiple transport channels in a transmitter of a radio communication system supporting variable data-rate transmissions. This is accomplished by using a computationally efficient technique for processing the received data blocks for variable data rate transmissions. The improved transmitter receives the data blocks including the bits of data from multiple transport channels. The transmitter then forms rectangular arrays including a predetermined number of columns and rows using the received bits of data such that the columns are based on a segmented radio frame size suitable for variable data-rate transmission. The transmitter then equalizes and interleaves the formed columns and reads out bits of data in the equalized and interleaved column-by-column. The transmitter then multiplex the read-out bits of data for variable data-rate transmissions.

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